

WHAT IS CLAIMED IS:

1. A winding module for an electric machine comprising at least one flat winding that is angled at an end turn, wherein a vertex of the angled end turn is aligned with an axis of rotation.

2. A winding module according to claim 1, comprising a plurality of stacked, flat windings, each of said windings angled at an end turn, wherein vertices of the angled end turns are aligned to be coplanar with said axis of rotation..

3. A winding module according to claim 2, further comprising blocks disposed between the windings.

4. A winding module according to claim 1, wherein the flat winding is comprised of one of a group consisting of copper windings and superconductive windings.

5. An electric machine comprising:
a rotor body defining pole faces and having parallel sides perpendicular to the pole faces;
a winding module fitted over the parallel sides of the rotor body, the winding module including at least one flat winding that is angled at an end turn, wherein a vertex of the angled end turn is aligned with an axis of rotation; and
a pair of spindles secured to respective ends of the rotor body, the spindles securing ends of the winding module to the rotor body.

6. An electric machine according to claim 5, wherein the winding module comprises a plurality of stacked, flat windings each of said windings angled at an end turn, wherein vertices of the angled end turns are aligned to be coplanar with said axis of rotation.

7. An electric machine according to claim 6, wherein the winding module further comprises blocks disposed between the windings and the rotor body.

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2. A rotor winding module for electric machine fields comprising at least one bar winding shaped to include a preloaded axial offset that allows end arms of said winding to lengthen and shorten with changes in rotor speed without undergoing elongation.

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